

NATIONAL ACADEMY OF SCIENCES
COMMITTEE ON INTERNATIONAL SECURITY AND ARMS CONTROL
2101 Constitution Avenue Washington, D.C. 20418

March 28, 1994

The Vice President
United States Senate
Washington, DC 20510

Dear Mr. Vice President:

I am writing as chairman of the Working Group on Biological Weapons Control of the National Academy of Science's Committee on International Security and Arms Control. Since 1986 we have been meeting with a counterpart group of scientists from the Russian Academy of Sciences to discuss issues related to curbing the proliferation of biological weapons (BW). We have recently embarked on an important new area of discussion: the problems of converting facilities and personnel formerly engaged in research on dangerous agents to productive, civilian work. I believe that focused U.S. assistance to a key set of laboratories could quickly achieve substantial public health benefits for both Russia and the United States, while speeding the transition from BW-related research.

There appear to have been three types of BW-related research in the former Soviet Union, each of which will require different conversion strategies. Institutes of the Russian Academy received funds from the Ministry of Defense for basic research with potential relevance to BW. These facilities and personnel are being assisted by both public and private efforts to preserve the basic scientific capabilities of the former Soviet Union. At the other extreme, the military operated highly secret programs for both offensive and defensive BW. As yet we have only limited knowledge about these activities and it will probably require military-to-military contacts to achieve greater transparency. The third group of facilities were clearly engaged in work for the military on dangerous strains with potential BW applications, and were at least marginally involved in their militarization. Biopreparat is a typical facility in this third category. I believe that significant progress could be made in converting this type of facility with relatively limited amounts of American assistance.

We propose providing support for Russian facilities such as Biopreparat to enable them to maintain their facilities and personnel, while diverting them to joint research efforts with American scientists on key public health problems. In return for this support, the facilities would be required to provide full accounting of their past activities and assurances of future peaceful work. Our Working Group has had several contacts with the director of one such facility, NPO Vector in Novosibirsk, and we believe that such a bargain is feasible. One could begin such assistance with NPO Vector as a way of demonstrating that concrete benefits result from cooperation and peaceful work.

Such an arrangement could have significant benefits for both the U.S. and Russia as well as to world health. For example, the Russians have extensive experience with hantavirus, which is a major health problem in the former Soviet Union. American scientists could learn a great deal from their Russian colleagues that could be applied directly to the diagnosis and treatment of this emerging health threat in the United States. At the same time, American assistance would provide the means to keep these Russian scientists from being tempted to make their knowledge available to states or substate groups interested in acquiring biological weapons. There is a long history of such Russian-American collaboration for public health research, stretching back to the development of the live polio vaccine, which underwent field testing in the Soviet Union, and to more recent cooperative work on hemorrhagic fevers.

These laboratories could also be supported for vaccine production for the Russian and other international markets. The U.S. corporations that have explored joint ventures with the Russians have generally decided that Russian facilities could not be brought up to U.S. standards unless completely new facilities are constructed, at a cost of tens and perhaps hundreds of millions of dollars. Given the growing health crisis in the former Soviet Union, which poses another threat to the internal stability of these republics, a more modest investment in existing facilities to enable them to produce high quality vaccines, albeit not up to American standards, would be a major boon to preventing further deterioration in health conditions. Again, a targeted investment could yield quick and tangible results.

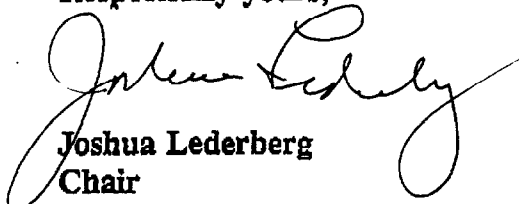
In both cases, involving American scientists in such projects on a continuing basis would provide further assurance that the facilities remain committed to peaceful purposes. On the scale of the assistance needed to convert the FSU nuclear and chemical weapons complexes, the funds required for this phase of BW conversion is modest. Approximately \$5 million a year could support the conversion of several of these "gray area" facilities. Most of the funds should go to the Russian laboratories, with some funds available to support American participation and to ensure a continuing American presence at the facilities.

I want to urge you to consider adding the issue of biological weapons conversion to the work of the joint commission you have established with Russian Premier Chernomyrdin. Alternatively, this work could be added to that of the commission that Secretary of Defense William Perry has established to work on conversion. A panel could be established under one of these auspices to provide a quick assessment of potential programs, and to initiate the cooperative work. I or other members of the BW Working Group (see enclosed list) would be happy to provide any advice that you deemed warranted to these efforts.

In sum, I believe that an opportunity exists to provide tangible benefits to the Russia while enabling facilities formerly involved in BW-related research to be converted to peaceful purposes. If properly targeted, assistance could yield benefits quickly. The nature of the biological weapons problem is such that only such openness and engagement by Americans and Russians can offer any assurance that conversion is successful.

I would be happy to provide any further information or assistance that you or your staff might require. Thank you for your attention to this matter.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Joshua Lederberg".

Joshua Lederberg
Chair

Working Group on Biological Weapons Control

cc: Honorable William Perry
Honorable Ashton Carter
Dr. Jo Husbands